WIESER ON ECONOMIC CALCULATION UNDER SOCIALISM

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A controversy exists concerning the extent to which Ludwig von Mises and Friedrich A. Hayek differed on essential theoretical elements of their respective understandings of the market process.[1] One intriguing aspect of the debate has been the question of the degree of Friedrich von Wieser's influence on Hayek's intellectual development.

Salerno (1993) alleges that Wieser's influence was "considerable," as illustrated by the fact that such influence is clearly evident in Hayek's 1926 contribution to the discussion of the imputation problem, as well as in framing his basic approach to the theory of capital. Salerno notes that such influence also appears in Hayek's adoption of Wieser's device of an omniscient and totally rational planner of a communist economy for Part II of *The Pure Theory of Capital*. In addition, Salerno (1999) argues that Hayek introduced the "Walrasian general equilibrium approach" of his "revered teacher" to his colleagues at the London School of Economics in the 1930s—to the detriment of Mengerian price theory—and was himself never able completely to break free of such an approach. Additional arguments for Wieser's use of a general equilibrium framework and his influence on Hayek's own adoption and use of that framework are made in Salerno's rebuttal (2002) to Caldwell (2002).

The more general dispute concerning important differences between Mises and Hayek seems to have been stimulated by Kirzner's (1987) insightful observation that the socialist calculation debate served as an important catalyst for the development of a distinctly Austrian School understanding of

[1]The main contributions in the ongoing controversy are Boettke (2000); Caldwell (2002); Herbener (1991, 1996); Hoppe (1996); Kirzner (1987, 1996, 1999); Rothbard (1991, 1994); Salerno (1990, 1991, 1993, 1994, 1996, 1999, 2002); and Yeager (1994, 1996, 1997).

the nature of the market process. Although not restricted to that literature, contributions by Mises and Hayek to the calculation debate have been extensively used and referenced in the more general argument concerning their respective understandings of the market process. This is especially true with respect to the question of the central weakness of the theoretical case for socialism. Simply put, the question is: "Does socialism face a calculation problem, a knowledge problem, or both; and, which is dominant in making rational economic choice impossible in higher order goods production?" Of course, a subsidiary question concerns the particular meanings assigned to those terms respectively by Mises and Hayek.

Although the formal debate between Austrian School economists and socialist and neoclassical economists over the theoretical possibility of economic calculation in a socialist economy began with Mises's 1920 article, the question of how production could be planned in a socialist or communist economy already had a long history. Most interestingly for the present argument, Friedrich von Wieser was an early participant in the discussion. In *Natural Value* (*NV*) in 1893 (1971) and *Social Economics* (*SE*) in 1914 (1967), Wieser sought to use the new value theory of Carl Menger as a key component in an argument for the possibility of economic calculation in a socialist or communist system. In so doing, Wieser presented an argument for "natural value" as the unit of calculation and for "imputation" as the method of deriving the values of higher order goods from the "natural values" of first order goods. He also assumed a general equilibrium context in his theoretical explanation of how socialist or communist economic planning using "natural values" could take place.

Salerno (2002) identifies the key features of the "verbal general equilibrium" context within which Wieser attempted to construct a case for economic calculation under socialism or communism, most notably in his *Social Economics*. Salerno also highlights the importance of Wieser's concept of imputation within a "simple economy" of socialism, as well as Hayek's 1926 acceptance and defense of it as a means for organizing production in a non-market economy. Notably, Hayek continued to use Wieser's "simple economy" of socialism as an analytical device as late as 1941 in his *Pure Theory of Capital*, and to assume as late as 1945 (1972, p. 85) that an omniscient planner in such an economy could impute values from first order goods to higher order goods.

The purpose of this present article is to review and critique Wieser's concepts of "natural value," "imputation," and the "simple economy," and to show their departures from Mengerian thought. One of its main conclusions is that Wieser fails in his attempt to develop the legacy of Carl Menger to provide theoretical support for socialist or communist planning. That is, Wieser fails to show that economic calculation is theoretically possible under socialism.

Specifically, it will be argued that Wieser's concept of "natural value"—a concept apparently derived from his attempt to understand and extend marginal utility theory beyond Carl Menger's use of it in his own theories of value,

exchange and price—is incoherent. It is also argued that, rather than being an improvement on Menger's theory of imputation, Wieser's approach is spurious and confuses imputation with a static theory of distribution. Further, it is shown that Wieser's theory of the "simple economy" in *Social Economics* collapses into an attempt to outline a static allocation model of a "Robinson Crusoe" economy that fails because it includes the key errors of *Natural Value*.

In sum, the nullification of Wieser's explanations of value, price, and exchange nullify his dependent arguments for the feasibility of economic calculation in a communist or socialist society and for state planning of production. In closing, I argue that Hayek's acceptance, defense, and use of such obvious and fallacious departures from Mengerian thought may account for Hayek's emphasis on the knowledge problem, rather than the calculation problem faced by socialism, in contrast to the position taken by Ludwig von Mises.

VALUE AND MARGINAL UTILITY

Total Value of a Stock of Goods

At first glance, Wieser's *Natural Value* seems a relatively straightforward presentation of the early Mengerian version of the marginal utility theory of value, focusing on some of its implications for the theory of production—implications that extend the work of Carl Menger. A more thorough examination reveals this view to be mistaken.

In Book I, Wieser hypothetically examines the actions of an individual valuing person and has been taken to task most notably for his argument (1971, pp. 25 and 34) that the total value of any stock of goods is a multiple of the marginal utility of the marginal unit evaluated.[2] The marginal unit is the one that obtains its subjective value from its (potential) use(s) to serve the lowest-ranked purpose(s) of the evaluator that is(are) possible, given the stock.

As Wieser himself recognized (in Chapter X "The Paradox of Value"), his method of calculating total value creates a paradox because removing the (current) marginal unit of a stock from consideration may increase the total value

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[2]See also Wieser's later (1891, p. 109) summary statement of this calculation. Critics of such a procedure have either argued that (Böhm-Bawerk, vol. II, p. 148, n. 25 and vol. III, pp. 81–83) total utility is actually found as a sum of the marginal utilities of all units evaluated, or that (Rothbard, pp. 269–70) the concept has no usefulness at all because units of a stock are evaluated by decision-makers one at a time, not *in toto*—and if they were evaluated *in toto*, they would then collectively be the marginal unit, and their collective utility a marginal utility. See also Mises (1966, pp. 120–23). It might also be pointed out that although total revenue (price times quantity) is useful for accounting purposes, total utility—being a psychological magnitude, if a magnitude at all—is not and cannot be so used. Hence, why bother with any attempt to calculate it? But, Wieser's interest is in total value, not total utility. The importance of the difference will be shown below.

of the stock. This is because the unit that becomes the new marginal utility multiplicand is necessarily more highly valued than the one removed. Although one is now multiplying it by a stock size smaller by one unit, the lower value of the multiplicand removed could be more than offset in the calculation of total value by the higher value of the new marginal utility multiplicand.[3]

Wieser's justification for his method of calculating total value, and explanation for why there really is no paradox, is to claim that each addition to the stock of a commodity has both a positive and a negative "element" to it. Positively, it adds its enjoyment to the total enjoyment possible through using all the goods in the stock. Negatively, it makes the marginal unit fall in value because (p. 30) "all the single items of a stock are considered only at the value of their marginal utility" as we shift our attention from the uses of the goods to "the goods themselves." And here he discovers a "surplus value." It is the difference between the value of the services to be obtained from the goods and the value of the goods themselves. The former is determined by the uses to be made of them; the latter by their relative scarcity. As the stock of units of a good increases in number from zero, men value the total of all units of the goods they possess according to the marginal utility of the marginal unit. Since all similar goods are interchangeable at the margin, each can be regarded as the marginal unit and thus the total value of the stock is its size times the marginal utility of the marginal unit.[4]

To be specific, Wieser argues that a stock of size one has a total value equal to its marginal utility. A stock of size two has a total value of two times the marginal utility of the (interchangeable) marginal unit—and this is necessarily less than the marginal utility of the first unit acquired (when one only acquires one unit) plus the marginal utility of either of the two when one has acquired two units. The difference in total value between the two situations is the "surplus value" that is lost as scarcity decreases. It is easily seen that as the stock increases, the "positive element" of the value of the marginal unit is increasingly offset by the "negative element" of the fact that there are now many total units and we are losing interest in them as individuals—as shown

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[3]Wieser's calculation example (*NV*, pp. 27–28) suggests that he is really thinking in terms of exchange values (prices) rather than marginal utilities, although he argues he is calculating the total value (in utility) of the stock. Like total revenue calculations, the totals he calculates rise, reach a maximum and then fall to zero as the number of units of the good increases from zero to 11. Ekelund and Hébert (1990, p. 330) assume that Wieser means prices when he refers to units of value or marginal utility.

[4]If one is not thinking of the personal uses to which goods are to be put, but of the marginal utility of the (interchangeable) marginal unit, and regards this as affected most by relative scarcity, it would seem one is really thinking of the exchange value of the marginal unit instead of its marginal utility. And this reinforces the point made in the previous note. Problems with this way of conceiving marginal utility are addressed below.

by the fact that beyond some point the total value of our stock ceases to rise and begins to fall.

Of course, this is a bogus argument and the fluctuation in total value is entirely due to Wieser's method of calculation and not to any "surplus value" lost through changing perspective. The interchangeability of units of a stock of goods does mean that before a decision is made to use a particular unit for a particular purpose, each can be considered to be the marginal unit. Shifting our attention from one to another unit, each would seem to have the same marginal value as any other. But, the enjoyment possible through use of one unit as the marginal unit is not the same enjoyment as that possible through the employment of another unit, once one has decided on the use of the first unit. So, the multiplication of the marginal utility of the marginal unit by the number of units possessed is uninformative of the total enjoyment possible through the use of all units in one's possession for all purposes one has. Why, then, would it be argued by Wieser to stand for the total value of all units possessed?

Usefulness and Value

The root cause of Wieser's error, and of others that fatally flaw the main argument in *Natural Value*, is the way in which he verbally separates the subjective "value" of a good from its marginal utility, so that a unit of a good is said to have "the value of its marginal utility"—as if the "value" of a good is something separate from its marginal utility, but capable of being made equal to it.[5] This treatment begins with his reference (pp. xxxi–xxxii) in the "Author's Preface" to "the old proposition, that the value of goods comes from the Utility of goods, or—what is the same thing—from the satisfactions of want which goods assure." There, Wieser refers (p. xxxii) to the forerunners of the new theory of value (the marginal utility theory) as "those who take up the question of quantities of goods as well as their utility." Thus, it seems he means the word "utility" to refer to objective characteristics of the good that make it useful, rather than to the results of an evaluation of the relation between the amount of the good and the purposes that may be achieved through its use.[6]

In Chapter III, Wieser sketches a hierarchy of wants and argues the satiability of each category according to "Gossen's Law." This is followed by a statement in Chapter IV (*NV*, pp. 10–11) that one could "mark every separate act

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[5]If the subjective "value" of a good is something other than its marginal utility, Wieser never indicates exactly what. He does argue that the value of a good is derivative of the value of the want that it is used to satisfy; but, surely the value of its use to satisfy that want at the margin is what is meant by its "marginal utility."

[6]This interpretation is confirmed when Walras, Condillac, Genovesi, and Senior are listed as examples of writers who show (*NV*, pp. xxxiii) that "'scarcity,' 'limitation of supply' is recognised as the condition under which utility creates value." In addition, it is noteworthy that in the beginning paragraphs of Chapter I, "utility," "useful," and "value-in-use" are used interchangeably.

of satisfaction with the value that accompanied it," and so "obtain a diminishing scale." (This approach itself will be criticized below.) Arguing that (*NV*, p. 12), "classes of goods correspond to classes of wants, and judgments concerning the importance of classes of wants will correspond with judgments on the usefulness of classes of goods," Wieser, nevertheless concludes that even some of the goods of "the highest usefulness" will "be put only to a very trifling use" It seems clear that he equivocates in his use of the term "useful." So far as his application of the term to a particular class of goods, he appears to mean by its "usefulness" its importance. And this is determined by the importance in the hierarchy of all wants of the particular wants to be satisfied using goods of that class. There is no value connotation attached to individual units of goods here. So far as application of the term to those units of goods in a particular class that are used to satisfy a particular category of wants, he appears to mean by "useful" that each unit is able to secure a particular level or amount of satisfaction of a certain want. There is a value connotation here, and this is shown by the phrase "a very trifling use." So, what is actually meant is that a highly ranked want can be satisfied to the point that the marginal unit of a good used to satisfy that want provides very little additional satisfaction.

This seems unobjectionable, so far as it goes; however, there remains a second issue—the question of how one could "mark every separate act of satisfaction with the value that accompanied it." Satisfaction is a mental state that results from mental or physical actions taken to achieve ends. Satisfactions do not occur without cause, although one can abstractly contemplate them as they occur (or recall them by memory and use them in imagination). Certainly, satisfactions can be subjectively ordered or ranked ordinally, as can degrees of satisfaction. But, ordinal ranking is not cardinal measuring—which measurement Wieser implies. Further, the "value" of a satisfaction lies in its contribution to some believed overall state of well-being—and this is not cardinally measurable either. So, the "value" being referred to by Wieser as some sort of abstract measurement cannot be the same sort of thing as the value attributed to a good used to achieve a particular (ordinal) level of satisfaction. The latter is the "economic" value to which theories of value in economics commonly refer.[7]

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[7]Wieser appears to recognize this at the beginning of Chapter VII, when he asserts (1971, p. 19) that man's interest in things is reflected in "economic valuation, when things are conceived of as instruments to and conditions of human well-being . . . as means to human ends." And (*NV*, p. 20), where he says that it requires a "special compulsion" for us to regard things as "objects possessing value." The "special compulsion" is, of course, that of scarcity. Mises (1935, pp. 96-97) is characteristically direct in denying the possibility of "a unit of subjective use-value for goods [because] judgments of value do not measure; they merely establish grades and scales." It is "the objective exchange-value of commodities [that is] the unit of calculation." See also Mises (1935, pp. 98, 104, and 107-08; 1951, pp. 114-15 and 211).

Value and Utility

Wieser's early ambiguities in the meanings of "utility," "value," "useful-ness," and "use" are followed in later chapters by an attempt to conceptually separate "value" and "utility" that only succeeds in emptying the word "value" of any content whatsoever.

The attempt is presaged by a statement (*NV*, p. 21) at the end of Chapter VII that "goods . . . receive value from that value which their employments have." He goes on to assert (ibid.) that the value of goods finds its origin in use, but does not necessarily reflect their utility (apparently meaning some hierarchical sense of "usefulness," as he later says that the particular use of a good can be "far removed from its general usefulness"). The task of the eco-nomic theorist is then given as explaining value by examining "those laws by which amounts of utility are changed into amounts of value."

This he attempts to do in Chapter IX where he uses the fact of scarcity to produce the marginal utility theory of value. However, in his presentation he uses examples where he assigns numbers to degrees of satisfaction and refers to them as "marginal utilities." Those same numbers are then used to signify the values of the units of the commodity in question, concluding (*NV*, p. 26) that "this law of value unites the conceptions of value and of utility in a way that is fully confirmed by facts." For illustrative purposes, the use of numerical examples is unobjectionable; however, when Wieser uses them (*NV*, p. 25) to argue that the total value of a harvest is equal to the numerical value of the mar-ginal satisfaction times the size of the harvest he is using a method of calcula-tion appropriate to totaling exchange values, not summing marginal utilities.

That Wieser is implicitly doing the former is apparent when he argues (ibid.) that "the use obtained from free goods represents no value whatever."[8] If a good is free (meaning that its exchange value is zero), of course it will be used, by those who desire it, until its marginal utility is zero. It is the fact that it is not scarce that makes it a noneconomic good for its users, and thus not a subject of exchange. As Menger noted (1976, p. 100), "men are communists whenever possible under existing natural conditions." The total value of noneconomic goods (calculated Wieser's way) will also be zero, because any number times zero is zero. It is the zero exchange value and consequent zero marginal utility that makes this possible; however, if the exchange value of each (interchangeable) unit is at all positive (that is, if the good is an eco-nomic one), the total exchange value may be found by multiplying the price by the number of commodity units in question. Contra Wieser, one cannot find the total economic value of the goods to the evaluator that way, as previ-ously argued.[9] It is even possible that a good can have a zero marginal utility

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[8]See also p. 70, where the same claim is made for free production goods. Compare Mises (1971, p. 45).

[9]Even if the marginal utility of any particular unit of a free good was zero, the total value calculated either as a sum of the subjectively-determined expected marginal values

for a particular person because it can provide no satisfaction to him directly, but have a positive economic value. If it has a positive exchange value, it can be traded for other goods that can provide satisfaction to him directly.[10]

Subjective and Objective Values

The footnote (*NV*, p. 26) at the end of the Chapter IX reveals the ultimate purpose of Wieser's idiosyncratic explanatory method in Book I. Because its implications extend throughout the rest of *Natural Value*, and are foundational to *Social Economics*, it is worth quoting at length:

> We have here reached a decisive point in our explanation. Experience shows us daily that similar goods obtain similar prices; and the majority of theorists . . . are agreed that these prices are fixed by a marginal law. In this is involved that exchange value, which rests on prices, is the same for all similar goods, and obeys a marginal law. We, however, have gone still further, and say that Value generally and in every form, even in that of use, and even where there is no exchange—as *e.g.* in a community organised on a socialist basis—*must be the same for all similar goods* [emphasis added], and must obey a marginal law. . . . There is just one more point to which I should like now to draw special attention. Price not only regulates the amount paid by buyers, but also the amount of production by sellers: it gives to the latter its level. All goods produced for the market are produced under a valuation which considers similar goods as equal to one another, and which subjects them to a marginal law, and it is with reference to this valuation that the costs permissible are calculated, that all stocks are inventoried, that all undertakings make up their balance-sheets, and that all profit and loss is reckoned. If a socialist community were to give up exchange—the payment of buyer to seller—*it would not on that account require to give up this measuring scale for the valuation of goods* [emphasis added]. It could continue to value similar goods at the same figure, and to bring them all under a marginal law. (Wieser 1971, pp. 26-27)

Three points are relevant here. First, "exchange value" does not "rest" on prices; "exchange value" is what is meant by "price." Second, it is usually the case that exchange value is the same for all similar goods for the individual buyers or sellers buying or selling them. However, similar goods are only substitutable in use for the one person possessing and evaluating them, and their marginal values may differ from one evaluator to another. As Menger argues in his *Principles* (Chapter V), exchange value (price) is only a historical artifact.

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of all units in one's stock (as Böhm-Bawerk would have it), or as the stock evaluated either individually or in toto (as Rothbard or Mises would have it), could be positive. Compare *Social Economics* (1967, pp. 127-28), where it is argued that if a planned production process was expected to provide a superabundance of product (such that marginal utility would equal zero), it would only be undertaken in light of its "total benefit" or "total utility" to the community.

[10]Wieser (1965, p. 323) earlier made this exact point in his reply to Professor Macvane's critique of Austrian value theory. Also see Schumpeter (1989, pp. 6-7) on the effect on individual utilities of market exchange.

It tells us that at the time an exchange occurred, the traders valued the goods they received more highly than the goods they gave up, and were willing to make the exchange at the rate agreed upon. It does not tell us how the individual trader's marginal values compared to those of any other trader. Value only obeys a marginal law to the individual evaluator in the act of evaluation.

Finally, it is difficult to understand what Wieser means by saying that (*NV*, p. 26). "Value generally and in every form, even in that of use, and even where there is no exchange . . . must be the same for all similar goods, and must obey a marginal law." Values are the result of evaluation by an individual person. The law of marginal utility applies only to the evaluation process of such an individual. Marginal values are the subject of the law of marginal utility and interpersonal comparisons of the values obtained cannot be made. Thus, "value generally" cannot be the same for all similar goods in the absence of exchange because there is no "value generally" justified by the law of marginal utility under that circumstance. This means that if a socialist community were to give up exchange, there would be no basis for the calculation of costs or "values"—except for each individual evaluator, who would still calculate subjective values the same way as in a market economy. However, because "the measuring scale for the valuation of goods" is a subjective one, the "community" could marginally value nothing, whether it attempted to use a marginal law or divine revelation. For "community" valuations, accounting balance sheets and profit and loss calculations to be made up, exchange values would be required as input.

Thus, Wieser's attempt to place the socialist community on the same footing as that of the market economy fails at the outset. Wieser's confusion between (subjective) marginal values and (objective) exchange values that appears to stem from his conceptual ambiguity concerning value and utility has produced a foundationless claim for socialism. Unfortunately, it similarly dooms his basic thesis of "natural value," as will be shown next. And, as argued later, this ruin of "natural value" has serious implications for the concept of the "simple economy" that is employed by Wieser in his theory of state planning. This is especially the case in his *Social Economics*, where he attempts to use the theory of the "simple economy" as a springboard to a theory of the socialist economy.

"Natural Value"

Exchange Value

It is in Book II of *Natural Value* that Wieser attempts to define and explain the "natural value" that gives the title to the entire work. This only occurs after five chapters of an attempt to explain "exchange value" so that it may provide a contrast to "natural value." In the process of that attempt, Wieser aptly explains how the marginal utility principle leads potential buyers and potential sellers in a commodity market to settle on a price that is slightly lower than the marginal value of the good to the actual buyer who values it the least,

but slightly higher than the marginal value of the good to the potential buyer who decides to forgo the purchase. However, in contrast to Menger's treatment of the same subject, Wieser's presentation assumes the existence of money and emphasizes the importance of the wealth and income of the potential buyers and sellers as determinants of their success in exchanging money for goods. It is the distribution of wealth that determines the distribution of production in an exchange system–and this to the detriment of "the poor," Wieser concludes.

He proceeds in this way: Assuming that exchanges are made by means of money, Wieser examines the valuation of money itself and explains it using the marginal utility law. This produces the obvious decline in the marginal utility of money with increases in the wealth and income of the evaluator. But, rather than stopping with the recognition that money is no different in this respect from other commodities, Wieser goes on to a further point; he wishes to contrast the exchange values, or prices, of goods with their subjective values in an exchange system using money. In such a system, he asserts (*NV*, p. 57), "Value in use measures utility; exchange value measures a combination of utility and purchasing power." The result of this is that (*NV*, p. 58) "the distribution of wealth . . . decides how production is set to work." "The rich" pay the same prices as "the poor" for necessities–whose prices are set, he asserts, by the weakest (usually, poorest) buyers at the upper margin of their subjective valuations–and this is less than the goods' "personal valuation" to "the rich." Their leftover means are in this way available to "pervert" the distribution of production toward luxury goods and thus provide a "defective impulse" of consumption to production.

Exchange Value vs. "Natural Value"

The implication to which this leads is that (*NV*, p. 59), "while, in the individual household, the marginal line is drawn *naturally*, in economic life generally it is influenced also by the manner of the distribution of wealth" (emphasis added).[11] Thus, Wieser has set the stage for the discussion of "natural value" in contrast to exchange value, which is (*NV*, p. 62) "a caricature of natural value." And, what is this lauded "natural value"? It is (*NV*, p. 60) "that value which arises from *the social relation* between amount of goods and utility, or value as it would exist in the communist state" (emphasis added). Somehow, in "the communist state" goods "would rank in value according to the relation in which *the available stocks* stood to the demand; and that relation would express itself finally in the marginal utility" (emphasis added). Again, "social supply and demand, or amount of goods and utility socially compared with one another, would decide value." And most tellingly (*NV*, p. 61), "natural

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[11]Wieser makes a similar argument in *Social Economics* (1967, pp. 178–89) and extends it to discuss how the "strata of income and wealth" produce a "stratification of prices" that departs from "a rational social appraisal of dependent need values." Cf. his earlier discussion of price and value (1891, pp. 116–18).

value shall be that which would be recognised by a completely organic and most highly rational community."[12]

If ever a grand economic thesis begged for precision in explanation, this is the one. And yet, what is seemingly presented here as "natural value" is marginal utility as determined in an ant colony. Or, perhaps, marginal utility as determined in a society composed exclusively of humans replicated from a single subject. What has become of the caveat of the note (*NV*, p. 52) in Chapter III, where Wieser had argued that the economic importance of goods is found in "their relation to wants . . . but this relation to want can only be realised and measured individually"? Why, Wieser has cut the social Gordian knot by hypothesizing a super-individual determination of marginal utility for each good existing in a society without property or exchange. And for what purpose has this been done? So that he might present (*NV*, p. 61) "the communistic state as the perfect state," inasmuch as "natural value . . . is disturbed by human imperfection, by error, fraud, force, chance . . . by the existence of private property, and by the differences between rich and poor" when exchange values are established in a market economy.

Underlying Wieser's attempted contrast between "exchange value" and "natural value" are two key errors and one important omission. The first error has been discussed above, where it was argued that Wieser confuses (subjective) marginal value calculations with (objective) exchange value calculations in an attempt to "socially objectify" subjective value. It is that confusion which makes Wieser's concept of "natural value" merely redundant if it is intended to refer to the subjective marginal value calculations of the individual, but incoherent if it is intended to represent some sort of "social" marginal utility. Human societies are not ant colonies, and they are not formed of replicants. And Wieser has here provided no basis for a super-social calculation of marginal utility (although he attempts to do so in his later theory of the "simple economy" in *Social Economics*).

Wieser's second error stems from a fundamental misunderstanding of price formation in a market economy. In a completely free market economy, exchange values are the prices established by marginal buyers and marginal

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[12]At the very end of *Natural Value* (p. 242), Wieser admits that "natural value" is a fiction; however, it is never made clear exactly what sort of fiction. Is it a fictional value assigned by an omniscient intelligence who "knows" what is metaphysically best for each person, and, therefore, what their marginal valuations should be? Or, is it a fictional value that reflects each person's evaluation (right or wrong for them in some metaphysical sense) of the marginal utility of every possible amount of a good, and that is known by the omniscient intelligence? Each of these implies a "communist state" that differs significantly from the other. *Social Economics* (pp. 9–10) suggests that the first interpretation is the applicable one. Schumpeter (1989, p. 1, n. 2) opines that "'natural value' is a kind of 'social value'," asserts (p. 4) that a communist society would have "social utility curves" and would use "social value" and "social marginal utility" for production and distribution decisions and describes (p. 12) Wieser's theory as "thoroughly sound."

sellers in each market. But, a marginal buyer in one market may be an above-marginal buyer in another market, this classification depending on differences in the marginal utility assigned to different commodities by that buyer, as compared to the opportunity costs represented by market prices. And this means that it may be the case that a "poor" person who is the marginal buyer in one market pays a price just lower than the marginal utility of the commodity to him, while other buyers—who pay the same price—pocket large individual consumer's surpluses in that market. But, the "poor" person in one market could just as well become a "rich" person in another market, depending on his preferences and budgeting decisions—as well as his income and wealth positions.

It is in the nature of free markets to generate consumer and producer surpluses. That is why people trade, as Menger pointed out in the process of confuting the labor and other "objective" theories of value. And a single trader's consumer or producer surpluses may differ from the market for one commodity to the market for another. It is arbitrary, then, to label some traders "the rich" and others "the poor" and see in their differing preferences and consumption decisions a defect in the normal operation of a nonprice-discriminatory market.[13]

The omission in Wieser's attempt at contrast between "exchange value" and "natural value" is the basis for the assumption that there are "available stocks" of goods to receive their "natural value" marginally in the communist state. The theory of production and supply is inseparable from the theory of value in an exchange economy; and, as will be shown below, Wieser never provides a compelling argument that the same is true in the communist state. If "natural value" can be conceived only under the assumption of an arbitrarily determined stock of goods somehow made available to demanders, it cannot be compared fairly with exchange value.

"The Rich" vs. "The Poor"

More importantly for the basic point he wishes to make, Wieser also argues (*NV*, p. 58) that because the marginal utility of money is lower to "the rich," they provide a "defective impulse" to production and thus disadvantage "the poor," to whom the marginal utility of money is much higher. This is another false argument that flows from the same basic misunderstanding of how free markets work. It could be said that the presence of more than one

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[13]This is no denial of the fact that some have low and others high incomes and wealth holdings. It is a denial that that fact has any bearing on the general principles of exchange—which are the same for free markets in bread as well as in yachts. Some higher income earners do not buy bread; and some lower income earners save for years in order to buy yachts. Both markets exhibit the same principles of exchange, if they are free. Those who enter markets do so with varying endowments of tastes, preferences, wealth, intelligence, education, incomes, information, and purposes. They leave with varying gains. One might equally argue that consumers with bad tastes "bias" markets against the educated and refined. Cf. Reisman (1998, pp. 204–06).

demander in a market disadvantages each demander because the added competition bids up the price from what it would have been if there was only one demander. And, if one of two demanders dedicated more of his budget to that market, the other competitor would be doubly disadvantaged. Or, it might be said that among demanders for cloth, because tastes differ, the demand for varying materials, colors and weaves on the part of some demanders provides a "defective impulse" to production; it drives up the prices paid by all those who would be satisfied to purchase only plain white cotton cloth–if all textile industry resources were dedicated solely to its production.[14] Both of these statements may be true, but they are trivial. What is being described is how free markets work, whether traders are arbitrarily labeled "the rich" and "the poor" or not. No one demander has a right to a certain price or product characteristic that is violated in some way by the presence of other demanders, whatever their wealth or income status. And, thus, the use of the value-loaded verbs "pervert" and "disadvantage," and the term "defective impulse," to characterize price formation in a free market is inappropriate moralizing at the least.

Not to belabor the point, but assume a class of demanders arbitrarily labeled "the poor." If Wieser's argument was correct, we could just as well regard each member of "the poor" as a detriment to others in selected markets. For instance, those members of "the poor' with strong preferences for housing compared to nutrition bid away resources from those whose relative preferences favor nutrition; they do this by raising the costs of erecting grocery stores. This, in conjunction with a given demand for groceries, will raise the price of groceries to "the poor" who favor nutrition. Among "the poor" who demand groceries, some will be willing to pay more for milk than others but, following Wieser's logic, will only have to pay the same low price as those who are not willing to pay more. The marginal milk demanders will have only a small consumer surplus as compared to "the rich" milk demander, who is willing to allocate a larger portion of his budget to milk, but doesn't have to, and so can compete to buy beer in the "luxury" beer market.

Of course, Wieser's argument concerning the marginal utility of money also involves interpersonal comparisons of utility and thus cannot be proven. Although there is general agreement among economists that the marginal utility of money to any one person falls with more of it,[15] there is also general agreement that it is not possible to compare one person's marginal utility of money with another's–whatever their respective wealth or income positions.

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[14]I once heard a senior member of an economics faculty make this very argument, and protest irately at the injustice of consumer-driven product differentiation.

[15]Whether the marginal utility of money declines with absolute increases in income (Friedman and Savage 1948) or with relative income increases (Marshak 1951), interpersonal comparisons of utility are not possible (Alchian 1953).

Finally, in regard to the law of one price as it applies to resellable commodities, the reason for one price is that sellers who attempt to discriminate among buyers will create their own competitors. Thus, the seller who would ask more of "the rich" buyer than "the poor" one will find the self-interest of both leading to "the poor" one becoming a supplier to "the rich one." "The rich" buyer willingly switches suppliers in spite of the low marginal utility of money to him because it is quite rational to release money from one use so it can be used for other purposes. "The poor" buyer becomes a supplier because more money is better than less, despite the accompanying decrease in the marginal utility of money.[16]

IMPUTATION

Wieser's Critique of Menger

The ambiguities and errors that plague Wieser's attempt in Book II to conceive a "natural value" to displace exchange value in economic calculation also plague his theory of imputation in Book III. Beginning his own treatment on a foundation laid by Menger, and despite an avowed intention to generate a theory of imputation of economic value, what Wieser does in this book is to confuse the issue with the question of distribution.[17]

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[16]In *Social Economics* (1967, p. 185) Wieser attributes the establishing of "the general price" in a market to "socially controlled egoism." There is a just and equitable price that all agree on for the general benefit.

[17]This is even more clear in his later (1891, p. 110) statement that imputation makes possible "the distribution amongst the separate effective factors of [the] joint return." See also (ibid., p. 119). Streissler (1990, p. 59) also apparently confuses the theory of price with distribution theory when he asserts that if we take Böhm-Bawerk as our guide, "early Austrian Economics was practically nothing but a theory of distribution" and references Böhm-Bawerk's *Positive Theory of Capital*. Book III, Part B, Chapter IV of *Positive Theory* (1959, pp. 248–56) is very clear on the difference between the theory of value, the imputation of value from lower to higher order goods, and the theory of higher order goods prices, which result from a market bargaining process. Value imputation provides demanders of higher order goods with a calculated upper limit offer price. Menger (1888, pp. 23-27) is even more dismissive of the relevance of a theory of distribution to one of "economic causation." Mises (1951, pp. 151–52) points out that the question of distribution only arises in a socialist economy. This is because "under Capitalism incomes emerge as a result of market transactions which are indissolubly linked up with production . . . since they arise during the process of production and are indeed derived from it." Under socialism, production and distribution are intentionally separated. See also Mises (1935, pp. 89-90). In contrast, Hayek (1984, p. 34) asserts that "From Ricardo onwards . . . it was knowledge of the determinants of income which constituted the objective of theoretical economics." Thus, "a satisfactory solution of the problem of imputation is therefore the precondition . . . if the theory of distribution is to be definitively established on the basis of the subjective theory of value." Such solution "has to be attempted without recourse to exchange."

Menger's brief treatment of the imputation of the value of higher order goods from the expected value of the first order goods they are intended to produce is found in Section 3 of Chapter III of his *Principles*. There he argues (1976, pp. 162-65) that the value of any given quantity of a higher order good to the individual employing it is equal to the difference in the expected value of what can be produced given its presence and what can be produced in its absence. This principle applies to the subjective valuation of the services of all higher order goods, whether we label them land, labor or capital.

Wieser's own treatment of imputation proceeds differently. He begins (*NV*, pp. 69-71) by acknowledging that the value of production goods is determined by the expected value of the return from using them; however, in discussing the valuation of given quantities of specific production goods he departs significantly from Menger.

His summary of Menger's own argument not only misrepresents the main point, but also contains an important procedural error. Menger had proceeded marginally; that is, he had assumed a particular production process set in historic time and argued that the value to the economizing individual of *any given quantity* of a higher order good used in that process could be determined as the difference in expected values of lower order goods produced in its presence or absence. This represents a dynamic approach to the practical calculation by an economizer of limits to the value of particular amounts of higher order goods; it is not a theory of pricing or of distributive shares.[18] Wieser's approach is different.

Using a numerical example, he assumes (*NV*, p. 83) that three higher order goods could together in their best use produce 10 units of value; whereas, used separately in other processes they could collectively compensate for the loss of 10 value units by an increase of nine, at a rate of three each. Obviously, this is Wieser's justly acclaimed concept of opportunity cost at work. The opportunity cost of removing the three goods from other uses is three value units each. Wieser then claims that Menger would attribute instead a value of four to each good because if one were lost, the other two would only compensate the loss of 10 by an increase of six. Since any of the three could be the lost one, they would thus have a collective value of 12, which is impossible. Instead, Wieser assumes (*NV*, p. 85, n. 1) a collective value of 10, from which if nine is subtracted there is a surplus of one.

This critique ignores two things. First, Menger's dynamic, process-oriented analysis is ignored by a static calculation of collective value as three

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[18]Böhm-Bawerk (1959, III, pp. 88-89) recognizes this difference and uses it to rebut Wieser, while Hayek (1992, pp. 114 and 116) applauds Wieser's attempts to expand value theory to produce a theory of distribution and (1984, pp. 39-42, 51) recommends Wieser's solution over that of Menger and Böhm-Bawerk. Mises (1951, pp. 139, 196, 201 and 205) is steadfast in arguing that economic calculation is solely a problem of economic dynamics. So much for Sweezy's (1934, p. 176) judgment that the early Austrians agreed "on all matters of fundamental importance."

times the "lost" value if any one of the three goods were removed from production. If any one of the three were removed, four units of value would be lost. If one of the remaining two were then removed, three additional units of value would be lost. Obviously, if all three were removed, 10 units of value would be lost, not 12. Second, Menger is not attempting to calculate distributive shares to the cooperating factors, as is obviously the case with Wieser. Such a calculation requires a theory of factor pricing and Menger's brief treatment of imputation is part of his theory of value, which occurs before his theory of price.[19]

Wieser's Imputation Theory

In fact, what Wieser then attempts is a different enterprise from Menger's; Wieser attempts to construct a theory of distribution using a theory of imputation. He presents a solution to the imputation problem that completely departs from Menger's marginal approach and, in fact, drops the marginal utility theory of value completely. The deadfall that leads Wieser into that result is his introduction in Chapter V of Book III (*NV*, p. 88) of a set of three simultaneous equations as a supposed improvement over Menger's method of determining the value of higher order goods. The solution of these equations is asserted to provide the respective amounts of "the total value of the return" to be imputed to each of the cooperating productive factors. The equations are:

$$x + y = 100$$
$$2x + 3z = 290$$
$$4y + 5z = 590$$

Where $x = 40$, $y = 60$, $z = 70$

Wieser claims that each of the equations expresses a combination of the factors of production on the left side and the value of the returns on the right side. He asserts that this approach reveals "the productive contribution" of each factor of production, which is "that portion of return in which is contained the work of the individual productive element in the total return of production." Thus, "If we add together all the equations, the total amount of productive wealth will stand as equivalent against the total value of the return."

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[19]Menger asserts (1976, p. 173) that he will explain the pricing of the services of land, labor, and capital–as compared to the values of those services–later on; and, that the general principles of that pricing are the same as those for commodities. This explanation is never provided, although it was to be included in a second part of the treatise of which his *Principles* was to be the first part. His criticisms of Ricardo and (by implication) Malthus (pp. 167–72) are only suggestive of the explanation he may have intended to present. See also Böhm-Bawerk's (1959, III, pp. 80-84) response to Wieser's critique and Mises's (1951, pp. 121 and 154) and (1966, p. 335) argument that value imputation cannot be used under socialism to divide up the value of a joint product among complementary factors.

For this actually to be the case, the left and right sides of the equations must be commensurable; that is, either the variables or the coefficients on the left side of the equations must be denominated in the same value units as the values on the right side of the equations. What is Wieser's standard of commensurability?

Unfortunately, his presentation is ambiguous on this point and several interpretations of the meaning of the terms in the equations are possible. Nevertheless, there are only three possible standards that would fit what these equations mathematically represent—and they are mutually exclusive. Either the left and right sides are commensurable in terms of physical units, or they are commensurable in subjective value units, or they are commensurable in terms of monetary units.

If x, y, and z are physical or subjective value units, then 40 of x and 60 of y will sum to 100, and so on with the other two equations. Assuming that they are physical units of input does not agree with Wieser's claim that the value of the returns is shown on the right side of the equations. Assuming that they are subjective value units begs the question of how such subjective values have been objectified in the equations so that value inputs yield value outputs; and, if they can't be objectified, they can't meet their intended use in planning. Only if x, y, and z are assumed to be the monetary values of the inputs, will 40 monetary units worth of x and 60 monetary units worth of y sum to 100 monetary units.[20] The result is a distribution of shares of the price of a unit of output among inputs. But, this division of revenue into factor costs avoids the question of how the factors came to be combined in the fixed proportions in each industry, and the "imputation" method itself cannot be used for industries using variable input proportions. It becomes a mere accounting division of total revenue and also avoids the main question of distribution theory—how are the prices of the inputs determined?[21] Even

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[20]Thus, Blaug (1997, pp. 411–12) assumes that x, y, and z are the prices of the inputs, combined in different, but fixed proportions in each of three industries, with the numbers on the right being the respective prices of a unit of output in each industry. Stigler (1941, p. 169) notes that this implies the "absurd" assumption that demand is infinitely elastic at the given prices. He also finds (p. 165) a tendency to vacillate between fixed and variable input proportions, and interprets this to mean that altered proportions imply an altered product to Wieser. Hutchison (1953, p. 156) opines that Wieser was just following Menger's emphasis on the complementarity of production goods but not that on variable proportions, which is required for marginal productivity analysis.

[21]Wicksell (1954, pp. 24-25) interprets Wieser's equations as merely stating that under free competition factor prices "must be approximately the same in in all transactions," but omitting the "how and why." To answer these questions he suggests a method that considers quantitative changes, such as use of the differential calculus. Nevertheless, Euler's Theorem cannot be used to dynamically attribute value or revenue according to marginal productivities of higher order goods in a fixed proportions production process, even if the neoclassical assumption of infinite divisibility of input and output was made.

more importantly, the Mengerian dynamics are lost and there can be no calculation of marginal product or marginal values.

As a third possibility, if Wieser is assuming that *x*, *y*, and *z* are the respective factors of production, then physical combinations are listed on the left and either subjective value or monetary totals shown on the right of the equations and he is mixing mutually exclusive standards of equivalence. In other words, no "imputation" of shares in the value of output to specific amounts of factor inputs can be done in this case.[22] The "specific effect" of each factor, or of "the amount of the means of production employed," on the value of output cannot be identified this way, as Wieser would be mistakenly (*NV*, p. 87) claiming. The respective (*NV*, p. 88) "share in the return" or "productive contribution" of labor, land, and capital is not thusly revealed.

Imputation as a Planning Tool

Wieser's atemporal mathematical approach deliberately (*NV*, pp. 90ff.) ignores the temporal causal relation between variations in specific amounts of specific productive inputs and the resulting variations in the total value of outputs—the very relation that Menger had attempted to specify in his own theory of imputation. And this leads Wieser to a deeper error. He is led (*NV*, pp. 95ff.) to draw a distinction between "individual imputation" and "consideration of production as a whole." The former term refers to the imputation of shares of output value to specific production goods (their "contribution"); the latter to governmental evaluation of the total employment of all resources (their "co-operation") to produce the greatest possible total value, nationally.[23] He argues (*NV*, p. 95) that individual imputation is less informed of "the whole circle of conditions upon which the production depends, and the whole importance of the co-operation of all the factors." In other words, because he envisions imputation as the solution of a public set of simultaneous equations, Wieser is methodologically driven to the view that national economic planning of "production as a whole" would provide a more knowledgeable use of resources and a greater possible total output value than disaggregated individual planning of privately-owned resources. He sees (ibid.)

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[22]Ekelund and Hébert (1990, pp. 335 and 588) appear to take this to be Wieser's assumption. However, if one assumes that the coefficients of his equations are prices, then *x*, *y*, and *z* could be treated as amounts of productive inputs that, times their prices, yielded certain total revenues. But, how were such prices determined? And, why do they differ among the equations? And, if they are prices, "imputation" still becomes a trivial accounting division of total revenue.

[23]Parallels between Wieser's approach throughout Part I of Book III on "The General Principles of Imputation" and the linear programming approach to the organization of production on a national scale are apparent. See especially (*NV*, p. 89, n. 1) and (*NV*, p. 94). The key difference is that linear programming relates quantities of inputs to quantities of outputs, using fixed technical coefficients of production. It does not relate value of output to amount of input. In this regard, compare *Social Economics* (Wieser 1967, pp. 47–48). Blaug (1997, p. 412) also notes this parallel.

vast spillover effects in the use of resources that government planning could take advantage of, but individual decision-making would not take into account.

Yet Wieser has provided no means for such national planning. Without assuming an economy in which every commodity can be produced only one way, that the required inputs are available in just those proportions, that output prices are given and that input prices are set by the producers, his simultaneous equations cannot relate specific amounts of factor inputs to total output values, as he apparently thinks they can.[24] Without that relation, shifts of resources would be arbitrary, trial and error procedures. Even more telling is the absence of any recognition of the key role played by input and output prices, and their changes, in affecting resource allocation in a market economy.[25] From this point on (Chapters VII–XIII), a fatal ambiguity is introduced into the argument. It is not always clear whether Wieser is discussing the imputation of shares of total subjective value or total exchange value to categories of production factors, or whether he is discussing the imputation of shares of physical product to the specific contributing factors. What is very clear is that Wieser believes that such imputation can be done in command economies as well as market ones; however, as just shown, he provides no foundation for this belief.[26]

Nevertheless, in Part II (Natural Land Rent) and Part III (The Natural Return to Capital) of Book III Wieser proceeds to discuss distributional questions as if Part I had provided such a foundation. In Part II, he assumes the existence of rent and of prices for land and the produce of land in market economies as well as in communist ones, with no explanation of how such prices are established. With respect to rent, Wieser asserts (*NV*, p. 122) that "the law of a universal land rent, and the universal law of imputation are

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[24]And, if they are intended to summarize subjective value imputations, they cannot be objectified and compared as bases for a national plan.

[25]Little short of amazing is Wieser's statement (*NV*, p. 94), "The imputation of return to land, capital, and labour, according to the measure of their respective productive contributions, is a natural economic dictate; it holds in all forms of economic life–in the communistic state as well as in the present one." In the "communistic state" there would be no market exchange prices on which to base values and impute returns, even if Wieser had been successful in his attempt to derive a principle of imputation. Hutchison (1953, p. 247) references and quotes Gustav Cassel on the inability of Wieser's communist state to direct production for this reason.

[26]For example, in Chapter VIII, Wieser asserts (*NV*, p. 98) that in allocating production goods among uses, it is desirable to maximize the marginal utility obtainable. Since the context of his discussion is one of national planning, the implication is that marginal utility values can be objectively measured. Unless Wieser means to refer back to his presentation on "natural value," the implication is unsupported. And, if he does mean such a reference, since "natural value" has been shown to be vacuous, his objectification of marginal utility for resource allocation is spurious.

identical."[27] Most of this part consists of a review and critique of Ricardo's theory of land rent, with what might be described as "lukewarm approval."[28] Especially curious is his supposition (*NV*, p. 116) that rent (however determined) could be capitalized in the communist state.

<div align="center">NATURAL VALUE AND THE STATE</div>

Although Book V of *Natural Value* is devoted to an extended and problematic explanation of the relations between production costs and the value of resulting output, little of it seems relevant to the argument of the present paper.[29] What is relevant appears in the very last chapter (XIII) on marginal valuation and the national economy. There, after the frequent use of the terms "value" and "utility" in a particularly ambiguous manner, Wieser finally asserts (*NV*, p. 213) that "exchange value, as expressed in price" is the key form in which the "natural value" of goods is expressed.[30] This is because "If the prices for all similar goods in one and the same market are equal in amount, it is because, in the last resort, the valuations of all similar goods in one and the same economy are equal." A further departure from Menger's conception of the relations between market prices and the subjective marginal value calculations of trading individuals can scarcely be imagined.

Wieser's purpose in making this equivocation is stated clearly: "In so far as prices represent natural value, an enormous and arduous mental labour of calculating the exchange value of things is saved." And why would it be desirable to calculate the "exchange value" of everything produced in a national economy? Because (*NV*, p. 214) a national economy is viewed by Wieser as productive of a sum total of value or utility, when considered as a whole complex of interacting productive activities. The establishment by "individual economic evaluation" of an "equilibrium" of values thus makes it possible for

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[27]His acceptance of the argument that rent is a surplus over costs is clearly opposed to Menger's position in his *Principles* (1976, pp. 167–69) that Ricardo is wrong. Menger argues that there is no difference in the principles explaining the value of land and its services from those explaining the value of any economic good. Yet, Wieser's view is consistent with his critique of Menger's imputation theory (summarized earlier) and, consequently, with the conception of imputation as one principle in a theory of distribution, rather than in a theory of value. See also *Social Economics* (1967, pp. 334ff.).

[28]He faults Ricardo only for not recognizing that capital and labor are always scarce relative to land, and (*NV*, p. 120) for having no "general theory of economy, of value, and of imputation."

[29]Wieser continues the practice of referring to "value" (presumably meaning "subjective value") and "marginal utility" as if they were separate, with marginal utility determining (subjective) value only under specific circumstances. See Section 2 above on problems caused by this attempted distinction.

[30]The same point is made in *Social Economics* (1967, p. 144) as Wieser prepares to move from the theory of the "simple economy" to that of the "social economy."

all goods to "get imputed and distributed out to them the utility which they give only when co-operating with one another." And this opens the door to the view that, with respect to the production of "value," there exist greater considerations than those of individuals in a national economy. The purpose of Book VI is "to show how far natural laws require that individual economic valuation be complemented by the economical considerations of a community, or, more particularly, of a state."

To do this, Wieser must carve out a sphere for state action. Not surprisingly, he declares that there are conventionally three collective duties given to the state: police and justice, public works, and natural monopolies. The last mentioned, in the form of the "public enterprise," forms a bridge to the communistic state as follows:

A public enterprise is (*NV*, p. 225) a firm, owned and operated by the state, "where any considerable want is concerned while the power to pay is wanting." It charges less than profit-maximizing prices. In its case, "...valuation according to exchange value must be replaced by valuation according to natural value." In the communistic state, because all production and consumption will be under state control, that side of state activity makes the state a public enterprise writ large—and so it will use "natural values" for its resource allocation decisions. Thus (*NV*, p. 228),

> [a]n exact economic calculus must be established, the advantage and disadvantage of every sufficiently familiar process being put in figures; and it must be regarded as the triumph of economic art to exactly ascertain and exactly realise that plan which the value calculation indicates as the best.

It has previously been shown that Wieser fatally confuses subjective use value (marginal utility) with objective exchange value (price) in attempting to provide a foundation for calculation under socialism or communism. This confusion, as well as his methodological departure from considering marginal value calculations to be individual and subjective, introduces an ambiguity into the meaning of subjective value that empties his concept of "natural value" of any coherent content. This is true whether one uses the term "natural value" or "marginal utility" to refer to those marginal values. In this regard, it matters not that (*NV*, p. 242) Wieser refers to "natural value" as an "unempirical" fiction used in a work intended to be "in the best sense of the word, empirical." A fiction that has no definable content has no comprehensible use. Thus, without a precise conception of "natural value," the basis for "valuation according to natural value" is missing. And, if valuation according to natural value is incoherent, the expression of natural values in the form of exchange values is impossible—even if equal prices for similar goods were taken as expressions of equivalences in (subjective) value of those goods.[31]

In short, "natural values" cannot be used for resource allocation by public enterprises or the communist state if they remain unexplained and thus

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[31]As, for example, in Jevons (1871), Chapter IV.

unidentifiable. It cannot even be imagined what part they might play in resource allocation if they remain, as Wieser leaves them, a sort of economic phlogiston. Yet, Wieser carries a "short-hand" version of them beyond *Natural Value* into his monumental *Social Economics*, which becomes the primary reason his argument fails.

NATURAL VALUE AND THE THEORY OF THE "SIMPLE ECONOMY"

Summary of the Theory

In his *Principles*, Carl Menger seeks to explain the principles of economic calculation in the face of scarcity for two spheres of human action. The first is that of the individual or "isolated household economy." Within this sphere Menger explains the source, nature and measure of economic value, and the imputation of value from "first order," or consumption, to "higher order," or intermediate, goods. The second sphere is that of the exchange or "social economy." This is a complex of household economies that engage in voluntary production and trading activities so that each might better achieve individual economic goals than would be possible if each sought to achieve them in isolation. In that context, Menger explains the principles of exchange and of price formation under various market orders.

The first two books in Friedrich von Wieser's *Social Economics* (1967) follow the same subject order; however, both the method and content of his explanations are far different from those of Menger. Rather than an "isolated household economy," Wieser posits an omniscient, totally rational planner of an entire nation as his economic subject in his "simple economy." In this respect, his "simple economy" is a formalization of the public enterprise writ large or "communist state" of Book VI of *Natural Value*. Further, in his own theory of the "social economy," in addition to an explanation of the principles of voluntary exchange and price formation under various market orders, Wieser attempts to draw the implications of the inequality of wealth and talents for social conflict. Even further, he argues that the principles of explanation provided by the marginal utility theory for both simple and social economies are equally applicable to the socialist economy. In fact, claims Wieser (*SE*, p. xx), the marginal utility theory "gives the most effective weapons to the socialistic critic" of the exchange economy.

Wieser's theory of a "simple economy" begins with an extended discussion of human needs, for the satisfaction of which the omniscient manager directs the production of goods. Each household is assumed (*SE*, p. 21) to require a specific quantity of goods and services (its "demand") to meet these needs. But, this is not a growing economy; it is (*SE*, p. 43) one in "a static condition which has reached an equilibrium" of "a given, habitual state of economic efficiency." Gossen's "law of the satiety of needs" is invoked (*SE*, pp. 25–34) to produce the law of diminishing marginal utility in consumption, coupled with an arbitrary categorization of needs into "vital" and "pleasurable." The latter

category is capable of abuse and transformation into "the degenerative needs of luxurious desire," but only by the wealthy in an exchange economy. In the "simple economy," the omniscient, totally rational manager will only (*SE*, pp. 34–35) provide for the "well-being" of consumers; and, (*SE*, p. 22) apparently can calculate the exact marginal utility obtained in the application of each unit of each commodity to the satisfaction of each consumer's every need—both in the present and (*SE*, pp. 36–39) at each point in the future. All members of the economy's households are assumed (*SE*, p. 20) to be totally compliant and obedient to the manager's wishes. Further, production is directed at meeting their "demand," that is, (*SE*, p. 45) "it is the task of production to furnish the 'household' with those goods which are lacking at any time."

In this ideal, static, perfectly managed economy, the omniscient manager seeks (*SE*, p. 46) the maximum total utility. His means is (*SE*, pp. 48–50) the technical organization of production and distribution in such a way that (*SE*, p. 51) no productive resource can be shifted from one use to another without a diminution in the total utility of the consumption of output. This would occur if the marginal utility lost in consumption of the good whose output is reduced is greater than the marginal utility gained in consumption of the good whose output is increased as a result of the resource shift. In contrast to the exchange economy, which Wieser says (*SE*, p. 49) is unified by "the connecting medium, money," the simple economy is unified on the production side by "the labor of the producer." Thus, it is the allocation of labor in production that is the key to the maximizing of total utility in the simple economy.

Turning to the question of the organization of production, Wieser discusses in turn, labor, capital, and land. With respect to labor, he argues that (*SE*, p. 59) when labor is scarce it is applied according to the expected utility of its product, rather than conferring value on its product in proportion to the labor exerted in its production, as the labor theory of value would have it. With respect to capital, he begins by restricting his discussion to physical capital goods, the (*SE*, p. 63) so-called "produced means of production," that are (*SE*, p. 65) individually consumable in the process of production, but, by being constantly productively replaced, are not consumable as a totality. This "natural economic capital" he views as an aggregate capable of being "concentrated under one embracing control" in the theoretical "simple economy," just as it would in a socialist economy. With respect to land, he follows the Ricardian argument on the expansion and increased intensity of cultivation with population.

Wieser's conception of production in the "simple economy" by means of labor, capital, and land is a purely physical one. The (*SE*, p. 81) "natural costs" of production are the amounts of labor, capital, and land that are used to obtain specific amounts of specific outputs. These "cost-productive-means," through their various productive relationships, are said to provide a unity to all branches of production and neither include inputs with unique characteristics nor the actions of the entrepreneur—both of which Wieser terms "specific productive means." Following a brief explanation of the law of marginal

utility, he argues (*SE*, pp. 96–97) that a given amount of productive inputs should be allocated among known possible uses in production so that the marginal outputs of all commodities produced yield approximately equal marginal utilities in consumption. Alternatively, the principle is (*SE*, pp. 100–03) to produce so as to minimize the opportunity costs of output actually produced—where opportunity costs are the marginal utilities of output possible but not produced with the given inputs.

Because of the complementary nature of productive inputs, this introduces the problem of imputation, which Wieser (*SE*, p. 113) now recognizes as a different problem from that of distribution. He sees the former as concerned with the organization of production, while the latter is a question of property rights. Thus, even under socialism he believes that the (*SE*, p. 116) "practical" problem of imputation must be solved. A critique of Menger's argument, similar to that found in *Natural Value* (discussed in Section 4 above) but more vague and just as misrepresentative, is then followed by Wieser's own attempt at explanation. He prefaces that explanation with the claim (*SE*, p. 119) that "the entire yield realized as expected under the scheme of operations must be attributed without a remainder in the measure of the productive contribution." Unfortunately, and perhaps (*SE*, p. 123) as one result of Böhm-Bawerk's (1959, III, pp. 80–95) criticisms of his approach in *Natural Value*, Wieser merely recommends the method of determination by simultaneous equations, without an attempted specific demonstration. Rather than the "total value of the return," the inputs are now somehow to be arithmetically related to the marginal utilities of their marginal products. Other than vague references (*SE*, p. 120) to "trial and error" and (*SE*, p. 126) to an indifference equation of utility values among various commodities, how this is to be done is left as an open question.

As it turns out (*SE*, pp. 124–27), it is the assumed ability to compute marginal utilities that is the key to Wieser's proposed solution for the organization of production and consumption in the static "simple economy," or "model social economy" as he now (*SE*, p. 134) refers to it. All inputs and outputs are to be reduced to (*SE*, p. 126) sums of "units of utility" to form "the arithmetic foundation for a plan of production and management," for these are (*SE*, p. 135) the economy's "natural values."[32] If each input and output can be stated as equivalent to so many units of utility, then all can be compared for planning purposes. The overall plan will provide all commodities to meet consumer needs at the minimum utility cost and thus maximize total social utility.

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[32]This is the first use of the term in *Social Economics*. Presumably, Wieser now thinks of natural value as simply the value of a thing expressed as so many units of utility, somehow determined. But, see (*SE*, p. 169), where the term is used to refer to the commodities exchanged in a barter system.

In particular, physical capital, and its gross yield in specific production processes, would be reducible (*SE*, pp. 133-38) to so many utility units, and the ratio of the net yield to capital consumed could be calculated to determine the real rate of interest or marginal productivity in each possible use. This would be necessary for, and thus enable, rational capital allocation.

Wieser closes his treatment of the "simple economy" with (*SE*, p. 144) a claim similar to the one he made in the last chapter of Book V of *Natural Value*:

> All rules of the computation of utility value which we have deduced in the theory of the simple economy are observed in the computation of exchange value as it is universally practiced. Whenever we disregard the stress of economic power we shall find that the utility value of the simple economy is precisely the same economic value which functions in the transactions of economic exchange. To this extent, then, every economy in computing according to value in exchange complies with the original aims of economy.

Critique

Two approaches to a critique of Wieser's theory of the "simple economy" suggest themselves. The first is to treat the "simple economy" as equivalent to the "isolated household economy" of Menger and to examine its internal consistency and then compatibility with Mengerian marginal utility theory. Wieser specifically (*SE*, p. 19) denies such an equivalence, although he refers (*SE*, p. 87) to "the economy of a Crusoe or of the free, socialistic state of the future" when presenting the marginal utility theory of value.

The other approach is to take Wieser literally and critically examine his mental creation, again for internal consistency and compatibility with Mengerian marginal utility theory. As it turns out, only if the "simple economy" is treated as an isolated household or Robinson Crusoe economy can some degree of such consistency and compatibility be achieved. Any attempt to treat the "simple economy" as in some sense a social economy results in the loss of the basic building blocks of marginal utility theory—marginal utilities themselves.[33] And, because these are what Wieser now refers to as "natural values," his theory of allocation under socialism and later critique of the exchange economy both fail through their basic incoherence.

As Wieser presents it, his "simple economy" is a magician's black box. On one side of the box are households, who are presumed to have given sets of "needs" that can be satisfied by means of specific amounts of specific commodities. On the other side of the box are land, labor, and physical capital

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[33]Schumpeter (1954, pp. 915-16) asserts that Menger and Wieser almost solved the problem of showing how imputation is not confined to Crusoe's use of it in valuing and allocating resources, but extends to the pricing of factors in the context of free market exchanges—presumably, its only uses. But see footnote 12 above.

goods that can be combined to produce the commodities. Within the box are the actual production processes that transform inputs into outputs. The orchestrator of the entire process is the omniscient manager, dedicated to maximizing the total utility of the population. His method is a purely physical transformation, by his completely compliant subject people, of given amounts of inputs into outputs to meet consumer "demand" so that opportunity costs measured in utility units are minimized for all production processes.

First, it is difficult to see why this way of conceptualizing a solution to the problem of scarcity is not simply a restatement of Robinson Crusoe's situation, before the arrival of Friday. Wieser claims (*SE*, p. 49) that his simple economy is unified on the production side by "the labor of the producer," in contrast to the monetary unification of the exchange economy. That is Crusoe's position. He has only his labor as the directing, organizing and acting force that transforms the resources of his island into goods capable of satisfying his needs, to the extent desirable and possible. Nothing substantive is added by assuming more people and an omniscient manager, who manipulates them like pawns on a chessboard. In fact, something is lost—the independence and originality of Crusoe's choice of goals and of the methods of their attainment, given his resources.

Second, the problem faced by Crusoe is a scarcity of means to meet his various—and unlimited—ends. It is not one of transforming given amounts of resources to satisfy a given set of needs. Wieser is inconsistent. Either (*SE*, p. 21) specific quantities of goods and services are to be produced to meet consumer "needs," using whatever resources are available, or (*SE*, pp. 96–97) there are given amounts of productive inputs to be used in such a way that they produce outputs that confer the greatest amount of total utility.

Third, Crusoe's story is one of growth, a dynamic process of trying to move beyond mere survival to prosperity and, eventually, escape from the island. The static allocation model envisioned by Wieser is inadequate even to the task of explaining Crusoe's economy. And, whether confined to the Crusoe dilemma or not, a static allocation model drops Menger's context (*Principles*, 1976, pp. 67–71) of production as a process set in real time involving foresight, tempered by uncertainty. As Mises would later argue with respect to economic calculation (1951, p. 139), it is "a problem which arises in an economy which is perpetually subject to change, an economy which every day is confronted with new problems which have to be solved." Thus, how Crusoe transforms resources into goods that will meet his needs is also dynamic. It depends on his time horizon, his knowledge and creativity, his ultimate ends, the resources at his disposal or later discovered or lost, and other factors not under his control, such as the weather or the appearance of Friday or of pirates or cannibals. Finally, if he has a high expectation of ending his days on the island, this implies a completely different set of priorities than if he is dedicated to escaping.

Fourth, if Wieser is taken at his word and his "simple economy" is to be taken as a model for socialism then, as in *Natural Value*, human beings drop out of the model. Subjective marginal utilities are to be made objective data through the device of the omniscient manager of the economy. What purpose does this fantasy serve? No principle for the direction of a socialist economy can be derived from a situation that is impossible in any economy of actual human beings. Imagining that the knowledge of subjective marginal utilities would make it possible for state planners to rationalize production does not provide that knowledge. Nor does it provide any principles for using marginal utilities as they actually exist–as subjective evaluations–to rationalize production. Further, as Mises (1935, pp. 96–97) and (1951, pp. 114–15) points out, no "unit of value" is assumed in individual subjective judgments of value, merely a ranking for planning purposes.

Fifth, the concept of production as a static, purely physical process of transforming labor, land, and physical capital into physical goods is a regression to a pre-Mengerian view of the solution to the economic problem of scarcity. The concern with achieving the maximum total utility in distribution of the physical goods, or in minimizing the opportunity costs of production in utility terms, ignores the active force of consumer-driven entrepreneurship. It is that active element, combined with expanding knowledge and increasing control over production conditions, that forms, drives, and improves the process of transforming higher order into lower order goods in the Mengerian conception (1976, pp. 71–74) of economic progress.

Finally, Wieser's attempt (*SE*, p. 144) to claim an equivalence between computing utility values and computing exchange values in an economy without "the stress of economic power" repeats the error of *Natural Value* (p. 213) of discarding the foundational rationale for the exchange economy, as was also previously discussed.[34]

CONCLUSION

Friedrich von Wieser concludes *Natural Value* with the statement (p. 242) that the intention that "dominated" him throughout the work was "to be, in the best sense of the word, empirical," although he admits to have used "the fiction . . . of a natural value and of the utopian state of communism."[35] Then, he begins *Social Economics* with (pp. xvii–xxi) the claim that the theory of marginal utility provides the means for "enlightened statesmanship" to manage the social economy, a means which both classical and socialist theory

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[34]Wieser nevertheless is aware (*SE*, pp. 167–68) of the inequality in marginal utilities that provides the incentive for exchange.

[35]For an argument that what Wieser actually did was to construct a normative theory of "economic activity as it logically ought to be" see Mitchell (1950, pp. 247–57).

failed to provide. At the same time, he asserts his belief that the task of marginal utility theory is to provide a new foundation for socialism.

This paper has argued that the "fiction" of "natural value" is an empty concept that fails to serve the purpose of its author and undermines, rather than supports, his argument. Further, it has argued that marginal utility theory as developed by Wieser is neither a means for political economic management nor a replacement for the labor theory of value as the foundation of socialism.

If there is no "natural value" beyond the subjective marginal utility attributed to a unit of a good by an individual, and if knowledge of this subjective marginal utility is confined to the individual, and if the theory of exchange is not altered by income or wealth assumptions, then Wieser did not develop the theories of value, exchange, and price beyond the legacy of Carl Menger. In fact, he distorted and obscured them in his own presentation with his empty concept of "natural value," his spurious analysis of exchange value in contrast to "natural value" and his equally spurious imputation theory. Further, he provided an apparent theoretical support for socialist and communist theory from a school of thought whose previous and subsequent development (at least in the hands of Menger, Böhm-Bawerk, and Mises) was antithetical to such theories.

The historical record suggests that Hayek would not only have disagreed with the above evaluation of what Wieser did with the Mengerian legacy, but would have strongly disagreed.

In his 1926 article on the problem of imputation, he clearly argues for Wieser's version over that of Menger and Böhm-Bawerk, and does so after asserting (Hayek 1984, p. 34) that it is "knowledge of the determinants of income which constituted the objective of theoretical economics . . . [c]onsequently, the whole of economic theory rests on the explanation of the value of producer goods and thus on the theory of imputation." Further, Hayek explicitly adopts Wieser's "simple economy" as the context for his argument and argues (p. 46) not only the primacy of Wieser's approach over that of J.B. Clark and other advocates of the marginal productivity theory, but (p. 47) the advantage of the "simple economy" assumption even for the application of the marginal productivity approach.

In his laudatory obituary for Wieser, also in 1926, Hayek (1992c, p. 114) specifically credits Wieser with extending Menger's subjective value theory "to the laws governing the structure of production" and "the laws of income distribution," by means of "the concept of marginal utility, its application to production goods, costs as indirect utility, and imputation of value." Wieser is able to accomplish this explanation of (p. 116) "the more complicated situations in a society's economy . . . [without] falling into the dangerous trap of using the phenomena of an exchange economy as the basis of its explanation." In particular, Hayek credits (p. 121) Wieser's "simple economy" section of *Social Economics* with the detailed explanation of the "structure of production."

Eight years later, in his introduction (1992b, pp. 70-71) to the London School of Economics edition of Menger's collected works, Hayek refers to that same section of *Social Economics* as the "clearest systematic expression" of "the technical structure of production" by "the Austrian school." In fact, for at least a quarter of a century, according to Hayek (1992b, pp. 136-37), after he worked under Mises in an Austrian government office and became familiar with Mises's arguments, Hayek not only lauded Wieser's contributions to economic theory, but also used (Salerno 1999, 2002) a general equilibrium context for much of his own theoretical work. As was mentioned in the introduction to the present paper, Hayek explicitly adopted (1975, p. 27, n. 1 and p. 156, n. 1) Wieser's "simple economy" context for the initial theoretical part of his own 1941 *Pure Theory of Capital*–thus reproducing the structure of Wieser's *Social Economics* for presenting Hayek's own capital theory. Imitation is always the sincerest form of flattery.

During the same quarter of a century, Mises pursued a radically different course of thinking and research. Mises's "Economic Calculation in the Socialist Commonwealth" was published in 1920, soon to be followed in 1922 by *Socialism*. It is not difficult to identify arguments directed against Wieser's enterprise in those two works, as well as in Mises's *Nationalökonomie* in 1940 and *Human Action* in 1949–although Wieser is only critically referenced in the later works.

Hayek (1992b, p. 137) read *Socialism* soon after its publication and (p. 139) joined Mises's seminar in 1924. It seems particularly relevant to point out that as late as 1978, Hayek could still write (p. 141) that "many of its arguments, which I initially had only half accepted or regarded as exaggerated and one-sided, have since proved remarkably true [although] I still do not agree with all of it, nor do I believe that Mises would." In light of the argument presented in the present paper, it is difficult to avoid the speculation that the main argument that Hayek either half accepted or regarded as exaggerated and one-sided–at least until 1945–was, in fact, the argument that economic calculation is not possible under socialism because, either theoretically or practically, socialism has no means for placing values on higher order goods. If so, then Hayek's emphasis on the knowledge problem of socialist planning reflected his conviction that it, not calculation, was the dominant obstacle to rational economic choices under socialism.

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